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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/082,533	02/22/2002	Steve Yankovich	5914P001X	8355

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PATENTRY
300 MURCHISON DRIVE, SUITE 218
MILLBRAE, CA 94030

EXAMINER	
HUTTON JR, WILLIAM D	

ART UNIT	PAPER NUMBER
2176	

DATE MAILED: 06/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/082,533	YANKOVICH ET AL.	
	Examiner	Art Unit	
	Doug Hutton	2179	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 October 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *4,5 and 8* is/are rejected.

7)☒ Claim(s) *1-3,6 and 7* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 February 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *20031031*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

Claim 1 is objected to because of the following informalities:

- The claim recites "received user data input" in Line 8, but subsequently refers to this element of the present invention as "received user data" (see Lines 9 and 11) and "user data" (see Line 14). The element should be identified by the same term throughout the claim. Thus, the phrases "received user data" (Lines 9 and 11) should be amended to — received user data input —, and the phrase "user data" (Line 14) should be amended to — the received user data input —.
- The indentation of the last paragraph of the claim should be moved to correspond with the first "claim element" paragraph of the claim (e.g., the paragraph that begins, "a computer coupled") because the "second computer" is part of the "form generation system" (see Line 1) and is not part of the "learned routing form" (see Lines 3-4).
- The "second computer" (see Line 14) is a server that includes the "server-side application" (see Line 14). The phrase "the server-side application" in Line 14 should be amended to — a server-side application — because no "server-side application" is previously mentioned in the claim.
- The phrase "without server interaction" in Line 16 should be deleted because it does not correspond with the remainder of the limitation. More specifically, the limitation first recites a "***server***-side application" that processes data (see Line

14) and then subsequently recites that the data is processed "***without*** server interaction" (see Line 16). These two statements are contradictory. The examiner believes this is a typographic mistake, because it is the "computer" (see Line 2) that processes the "received user data input" to automatically change the "visual elements" or the "non-visual programmatic elements" in response to the "received user data input" (see Lines 8-11). Thus, Applicant may wish to move the phrase "without server interaction" to Line 11, so that Line 11 reads "to the received user data input without server interaction." Additionally, the "server-side application" (see Line 14) does **not** process the "received user data input" to "change both the *visual and non-visual elements* within each electronic form" (see Line 15). The Specification specifically states this (see *Specification* – Page 22, Paragraph 0047, first and second sentences). Rather, the "server-side application" processes the "received user data input" to generate a list of the required routing of the form (see *Specification* – Pages 17-19, Paragraphs 0041-0042). Also, the "server-side application" accesses a "heuristically generated routing selection list" in a "process routing knowledge base" to allow the user to either confirm the routing destination of the completed form or select which recipients receive the completed form from the heuristically generated routing selections (see *Specification* – Pages 23 and 25-29, Paragraphs 0048 and 0061-0065).

The following is a suggested amendment for Claim 1. For purposes of examination, the examiner will assume that Applicant agrees to adopt the amendment.

1. (currently amended) A learned routing electronic form generation system comprising:

- a computer coupled to each of one or more visual displays, wherein the computer generates one or more learned routing electronic forms, wherein each learned routing form includes:
    - a plurality of visual elements comprising text or data fields and graphical elements for receiving user data input; and
    - a plurality of non-visual programmatic elements that are linked to the plurality of visual elements to process the received user data input, wherein the computer processes the received user data input to automatically change the plurality of visual elements or the plurality of non-visual programmatic elements in response to the received user data input without server interaction, the plurality of non-visual programmatic elements further including elements to populate a heuristically generated routing selection list based on a history of previous routing transactions; and
- a second computer, wherein ~~the~~ a server-side application processes the received user data input ~~to change both the visual and non-visual elements within each electronic form, without server interaction~~ and uses the heuristically generated routing selection list to allow a user to either

confirm the routing selection list or select one or more recipients from the routing selection list.

Claim 2 is objected to because of the following informalities:

- the term "an" in Line 2 should be amended to — a — so that the claim is grammatically correct; and
- the phrase "user data" in Line 3 should be amended to — received user data input — because that is how the element is previously identified (see Claim 1, Line 8).

Claim 6 is objected to because of the following informalities:

- The claim recites "received user data input" in Line 7, but subsequently refers to this element of the present invention as "received user data" (see Lines 11 and 13) and "user data" (see Lines 15 and 16). The element should be identified by the same term throughout the claim. Thus, the phrases "received user data" (Lines 11 and 13) should be amended to — received user data input —, and the phrase "user data" (Lines 15 and 16) should be amended to — the received user data input —.
- The indentation of the last paragraph of the claim should be moved to correspond with the first "claim element" paragraph of the claim (e.g., the paragraph that begins, "generating by a computer") because the step of

"providing a server-side application" is part of the "form generation process" (see Line 1) and is not part of the "automated electronic form" (see Line 3).

- The phrase "without server interaction" in Line 17 should be deleted because it does not correspond with the remainder of the limitation. More specifically, the limitation first recites a "***server***-side application" that processes data (see Line 14) and then subsequently recites that the data is processed "***without*** server interaction" (see Line 17). These two statements are contradictory. The examiner believes this is a typographic mistake, because it is the "computer" (see Line 2) that processes the "received user data input" to automatically change the "visual elements" or the "non-visual programmatic elements" in response to the "received user data input" (see Lines 11-13). Thus, Applicant may wish to move the phrase "without server interaction" to Line 13, so that Line 11 reads "to the received user data input without server interaction." Additionally, the "server-side application" (see Line 14) does **not** process the "received user data input" to "change both the *visual and non-visual elements* within each electronic form" (see Lines 15-17). The Specification specifically states this (see *Specification* – Page 22, Paragraph 0047, first and second sentences). Rather, the "server-side application" processes the "received user data input" to determine which recipients receive the completed form (see *Specification* – Pages 17-19, Paragraphs 0041-0042). Also, the "server-side application" accesses a "heuristically generated routing selection list" in a "process routing

knowledge base" to determine which recipients receive the completed form (see *Specification* – Pages 23 and 25-29, Paragraphs 0048 and 0061-0065).

The following is a suggested amendment for Claim 6. For purposes of examination, the examiner will assume that Applicant agrees to adopt the amendment.

6. (currently amended) A learned routing electronic form generation process comprising:

- generating by a computer one or more automated electronic forms, wherein generating each automated electronic form includes:
    - providing a plurality of visual elements having text or data fields and graphical elements for receiving user data input; and
    - providing a plurality of non-visual programmatic elements that are linked to the plurality of visual elements to process the received user data input, the plurality of non-visual programmatic elements further including elements to populate a heuristically generated routing selection list based on a history of previous routing transactions,
- wherein the computer processes the received user data input to automatically change the plurality of visual elements or the plurality of non-visual programmatic elements in response to the received user data input without server interaction; and

- providing a server-side application residing on the computer to selectively provide the received user data input over the server to another computer, wherein the server-side application processes the received user data input ~~to change both the visual and non-visual elements within each electronic form, without server interaction~~ and uses the heuristically generated routing selection list to allow a user to either confirm the routing selection list or select one or more recipients from the routing selection list.

Claim 7 is objected to because of the following informalities:

- the term "an" in Line 2 should be amended to — a — so that the claim is grammatically correct; and
- the phrase "user data" in Line 3 should be amended to — received user data input — because that is how the element is previously identified (see Claim 6, Line 7).

Appropriate correction is required.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 5 and 8 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 5 and 8:

The language of the claims raise a question as to whether the claims are directed merely to an abstract idea that is not tied to a technological art, environment or machine which would result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101.

The claims recite an "electronic form for display on an electronic system" (see Claims 5 and 8, Line 1) comprising computer programming elements (see Claim 5, Lines 2-7 and Claim 8, Lines 3-8). This language does not recite that the "electronic form" is embodied on a tangible computer-readable medium. Thus, the invention, as currently recited, is neither concrete nor tangible.

Applicant may obviate the rejection of Claim 5 by amending the claim to recite — A learned routing electronic form tangibly embodied on a computer-readable medium for display on an electronic system —. Applicant may obviate the rejection of Claim 8 by amending the claim to recite — A self-directed routable electronic form tangibly embodied on a computer-readable medium for display on an electronic system —.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 4, 5 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4:

The claim recites the limitation "a form routing path defined by a previous user may be changed by modifying *a set of selected elements* ***in a routing of each electronic form itself***" in Lines 2-4.

This limitation is indefinite because it is unclear whether the "modified elements" that change the "form routing path" are located in the **electronic form** or are located in the **routing path**. That is, the examiner is unsure whether the "received user data input" entered into the form is changed or whether the "routing path" selected by a previous user is changed.

The claim must be amended to particularly point out and distinctly claim the subject matter of the present invention. Applicant may obviate this rejection by amending the claim to:

4. (currently amended) The learned routing electronic form generation system of claim 3 wherein with each successive route by the server-side application to each subsequent user, a form routing path defined by a previous user may be changed by modifying ~~a set of selected elements in a routing of each electronic form itself~~ some of the received user data input in the electronic form.

The above suggested amendment corresponds with the present invention, as described in the Specification at Page 20, Paragraph 0043, first complete sentence. For purposes of examination, the examiner will assume that Applicant agrees to adopt the amendment.

Claims 5 and 8:

Claim 5 recites the limitations "a plurality of visual elements" in Line 2 and "a plurality of non-visual programmatic elements which are linked to a set of user data input elements to *modify or provide a selection of* ***visual elements***" in Lines 4-5.

This limitation in Lines 4-5 is indefinite because it is unclear whether the "visual elements" are the same "visual elements" recited in Line 2 or other "visual elements." Also, the limitation in Lines 4-5 is indefinite because it is unclear whether the "link" between the "non-visual programmatic elements" and the "user data input elements" both "**modifies**" ***or*** "**provides** a selection of" the visual elements or ***only*** "**provides** a selection of" the visual elements. If the "link" ***only*** "**provides** a selection of" the visual elements, then the limitation in Lines 4-5 is also indefinite because it is unclear ***what*** is being "modified."

The examiner believes: 1) the "visual elements" recited in Line 5 are the same "visual elements" recited in Line 2; and 2) the "visual elements" may be either "modified" or "provided" for selection.

The claim must be amended to particularly point out and distinctly claim the subject matter of the present invention. Applicant may obviate this rejection by amending the claim to:

5. (currently amended) A learned routing electronic form tangibly embodied on a computer-readable medium for display on an electronic system comprising:

- a plurality of visual elements including text or data fields and graphical elements for data input and action selection; and
- a plurality of non-visual programmatic elements which are linked to a set of user data input elements to modify the visual elements or to provide a selection of the visual elements, the plurality of non-visual programmatic elements further including elements to populate a heuristically generated routing selection list based on a history of previous routing transactions.

The above suggested amendment corresponds with the present invention, as described in the Specification at Pages 16 and 17, Paragraph 0040, fourth through sixth sentences. For purposes of examination, the examiner will assume that Applicant agrees to adopt the amendment.

Claim 8 also recites the limitations "a plurality of visual elements" in Line 3 and "a plurality of non-visual programmatic elements which are linked to a set of user data

input elements to *modify or provide a selection of* ***visual elements***" in Lines 5-6. Thus, the above analysis for Claim 5 also applies to Claim 8.

The claim must be amended to particularly point out and distinctly claim the subject matter of the present invention. Applicant may obviate this rejection by amending the claim to:

8. (currently amended) A learned routing electronic form tangibly embodied on a computer-readable medium for display on an electronic system comprising:

- a plurality of visual elements including text or data fields and graphical elements for data input and action selection; and
- a plurality of non-visual programmatic elements which are linked to a set of user data input elements to modify the visual elements or to provide a selection of the visual elements, at least one of the plurality of visual elements being indicative of data used by a server to route the electronic form to a subsequent user.

The above suggested amendment corresponds with the present invention, as described in the Specification at Pages 16 and 17, Paragraphs 0040-0041. For purposes of examination, the examiner will assume that Applicant agrees to adopt the amendment.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 8 is rejected under 35 U.S.C. 102(b) as being anticipated by Tondevold et al., U.S. Patent No. 5,410,646.

Claim 8:

Tondevold discloses a self-directed routable electronic form for display on an electronic system comprising:

- a plurality of visual elements including text or data fields and graphical elements for data input and action selection (see Figure 3; see Column 4, Line 8 through Column 5, Line 63; see Column 7, Lines 3-55 – Tondevold discloses this limitation in that the system comprises forms having text, data fields and graphical elements for data input. The system and the form also allow a user to modify a routing definition to submit a completed form to additional recipients. Thus, the form also has text, data fields and graphical elements for action selection.); and
- a plurality of non-visual programmatic elements which are linked to a set of user data input elements to modify or provide a selection of visual elements (see Column 4, Line 8 through Column 5, Line 63; see Column 7, Lines 3-55 – Tondevold discloses this limitation in that the system comprises electronic forms

that include fields that are not visible to a user. Thus, the forms include "non-visual programmatic elements" linked to the fields that "provide a selection of visual elements" in that the software which displays the forms decides which fields to display to the user for data entry.), at least one of the plurality of visual elements being indicative of data used by a server to route the electronic form to a subsequent user (see Figure 3; see Column 5, Lines 1-15 – Tondevold discloses this limitation in that the system comprises forms that display data to let a user know that a form requires manager approval. The system subsequently distributes the form to the appropriate managers for approval.).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tondevold, in view of Kao et al., U.S. Patent No. 6,070,177.

Claim 5:

Tondevold discloses a learned routing electronic form for display on an electronic system comprising:

- a plurality of visual elements including text or data fields and graphical elements for data input and action selection (see Figure 3; see Column 4, Line 8 through Column 5, Line 63; see Column 7, Lines 3-55 – Tondevold discloses this limitation in that the system comprises forms having text, data fields and graphical elements for data input. The system and the form also allow a user to modify a routing definition to submit a completed form to additional recipients. Thus, the form also has text, data fields and graphical elements for action selection.); and
- a plurality of non-visual programmatic elements which are linked to a set of user data input elements to modify or provide a selection of visual elements (see Column 4, Line 8 through Column 5, Line 63; see Column 7, Lines 3-55 – Tondevold discloses this limitation in that the system comprises electronic forms that include fields that are not visible to a user. Thus, the forms include "non-visual programmatic elements" linked to the fields that "provide a selection of visual elements" in that the software which displays the forms decides which fields to display to the user for data entry.).

Tondevold fails to expressly disclose a plurality of non-visual programmatic elements further including elements to populate a heuristically generated routing selection list based on a history of previous routing transaction.

Kao teaches a learned routing electronic form for display on an electronic system comprising:

- a plurality of non-visual programmatic elements further including elements to populate a heuristically generated routing selection list based on a history of previous routing transaction (see Figures 3-5 and 8; see Column 2, Lines 11-23; see Column 5, Lines 36-56),

for the purpose of providing a means by which the transmission history and actions taken regarding a particular form may be viewed by the users of the form (see Column 5, Lines 44-48).

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the form, disclosed in Tondevold, to include:

- a plurality of non-visual programmatic elements further including elements to populate a heuristically generated routing selection list based on a history of previous routing transaction,

for the purpose of providing a means by which the transmission history and actions taken regarding a particular form may be viewed by the users of the form.

Allowable Subject Matter

Claims 1, 2, 6 and 7 are objected to as having the informalities indicated in the above discussion, but would be allowable if rewritten to exactly match the examiner's

suggested amendments in the above discussion. Claims 3 and 4, which are dependent upon Claim 1, would also be allowable if Claim 1 is rewritten to exactly match the examiner's suggested amendments in the above discussion. Also, Claim 4 must be amended to obviate the 112, second paragraph rejection.

The following is a statement of reasons for the indication of allowable subject matter:

Claims 1 and 6:

The closest prior art is Tondevold (US 5,410,646), Stiegemeier (US 6,192,381) and Kao (US 6,070,177).

Tondevold discloses an electronic form processing system on a server-client network. The system comprises routing definitions for each form handled by the system and an organizational hierarchy (sets of rules) that are used to automatically forward a completed form to the appropriate recipient in the system. A user who fills out the form, or otherwise handles the form, need not specify a recipient. However, the user may modify the routing definitions and specify additional recipients.

The system in Tondevold also comprises form definitions for each form. The form definitions may be used to: 1) hide, 2) display, or 3) display and allow modification of, particular fields within each form, depending upon the user who is viewing the form. For example, particular "approval" fields of a form may be marked "display only" to let the current user know that manager approval is required.

Stiegemeier discloses an electronic form processing system. The system comprises forms having complex, interrelated data. For each form, the various data entry fields may be hidden from or displayed on the form interface when a user initially access the form. As the user subsequently enters data into the form interface, the system automatically adds or removes data entry fields to or from the form interface. The addition of or removal of data entry fields to or from the form interface is based upon the data entered by the user. This feature is included into the system because there are times when, based upon data entered by the user, additional information is needed; yet, the "additional information" fields should not always be displayed in the form interface.

Kao discloses an electronic form processing system on a server-client network. The system comprises an "audit trail" that contains information pertaining to the transmission history of a form. The audit trail includes a list of all recipients of the form, the date and time of reception, any action taken by each recipient, and other such information. The audit trail is automatically updated as the form is transmitted from one user to another user and thus maintains a running list of the user that have received the form.

However, the prior art fails to disclose or suggest a client computer that generates learned routing electronic forms including non-visual programmatic elements that heuristically generate a routing selection list based on a history of previous routing transactions and a server computer that uses the heuristically generated routing

selection list to allow a user to either confirm the routing selection list or select recipients from the routing selection list.

Accordingly, Claims 1 and 6 are allowable.

Claims 2-4 and 7:

These claims are dependent upon Claims 1 and 6 and thus include allowable subject matter.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Ouchi, U.S. Patent No. 6,553,407; Geiger, U.S. Patent No. 6,073,142; Renaud, U.S. Patent No. 6,021,491; Rockley, Ann, et al., **Managing Enterprise Content: A Unified Content Strategy**, Chapter 17 – Workflow Systems, "*Processing*" (New Riders Publishing, © 16 October 2002); Linthicum, David S., **Enterprise Application Integration**, Chapter 18 – Message Brokers – The Preferred EAI Engine (Addison Wesley Publishing, © 5 November 1999); and Padwick, Gordon, et al., **Special Edition Using Microsoft Outlook 2000**, Chapter 22 – Creating and Using Rules (Que Publishing, © 12 May 1999).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Doug Hutton whose telephone number is (571) 272-4137. The examiner can normally be reached on Monday-Friday from 8:00 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon, can be reached at (571) 272-4136. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2100.

WDH
June 26, 2005

DOUG HUTTON
PATENT EXAMINER
TECH CENTER 2100